SERVICE DATE – FEBRUARY 8, 2018

SURFACE TRANSPORTATION BOARD

DECISION

Docket No. EP 290 (Sub-No. 4)

RAILROAD COST RECOVERY PROCEDURES—PRODUCTIVITY ADJUSTMENT

Digest:[1] Each year the Board calculates the change, if any, in the rail industry's productivity, i.e., how efficiently railroads move freight. The Board calculates this figure by comparing year-to-year the average cost of producing a unit of railroad output. Here, the Board presents its calculation for the change in railroad productivity for the 2012-2016 averaging period.

Decided: February 7, 2018

The Board proposes to adopt 0.996 (-0.4% per year) as the measure of average (geometric mean) change in railroad productivity for the 2012-2016 (five-year) period. This represents an increase of 0.3% from the average for the 2011-2015 period.

Since 1989, the cost recovery procedures have required that the quarterly rail cost adjustment factor (RCAF)[2] be adjusted for long-run changes in railroad productivity. R.R. Cost Recovery Procedures—Productivity Adjustment, 5 I.C.C. 2d 434 (1989); see also 49 U.S.C. § 10708. This long-run measure of productivity is computed using a five-year moving geometric average. Productivity Adjustment—Implementation, 9 I.C.C. 2d 1072 (1993).

The productivity change for the year 2016 is 1.015, based on changes in input and output levels from 2015 and represents an increase of 8.1% from the rate of productivity growth in 2015 relative to 2014 (0.939). Incorporating the 2016 value with the values for the 2012-2015 period produces a geometric average productivity growth of 0.996 for the five-year period 2012-2016, or -0.4% per year. As the new geometric mean was computed by replacing the 2011 figure of 1.001 with the larger figure of 1.015 for 2016, there was an increase of 0.3% in the geometric mean from last year's value. A detailed discussion of the Board's calculations is contained in the Appendix to this decision.

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[1] The digest constitutes no part of the decision of the Board but has been prepared for the convenience of the reader. It may not be cited to or relied upon as precedent. Policy Statement on Plain Language Digests in Decisions, EP 696 (STB served Sept. 2, 2010).

[2] The RCAF is an index of railroad input prices that is published by the Board on a quarterly basis. See, e.g., Quarterly Rail Cost Adjustment Factor, EP 290 (Sub-No. 5) (2018-1) (STB served Dec. 20, 2017).

Comments may be filed addressing any perceived data and computational errors in the Board's calculation. Any party proposing a different estimate of productivity growth must, at the time it files comments, furnish the Board with one set of detailed workpapers and documentation underlying its calculations. The same information must be made available to other parties upon request.

It is ordered:

1. Comments are due by February 23, 2018.

2. An original and 10 copies must be filed with:

United States Surface Transportation Board
395 E Street, S.W.
Washington, DC 20423-0001

3. Comments must be served on all parties appearing on the current service list.

4. Notice of this decision will be published in the Federal Register.

5. Unless a further order is issued postponing the effective date, this decision is effective on March 1, 2018.

By the Board, Board Members Begeman and Miller.

APPENDIX

The following is a description of the methodology currently used to calculate the RCAF productivity adjustment.[3] The annual rate of productivity change is calculated by dividing an output index by an input index.

The input index uses constant dollar-adjusted expenses. The inputs in this index—freight expenses, fixed charges and contingent interest—are stated on a constant dollar basis using the most recent year available as the base, and updating the base by the Series Rail Cost Recovery (RCR) Index published by the Association of American Railroads. Freight expenses, fixed charges, and contingent interest were obtained from railroad Annual Report (Form R-1) data. The 2016 Total Expense Constant Dollars for each of the 6 years was calculated by dividing a given year's RCR index value into the RCR index values for 2016 (484.3) and then multiplying that ratio by the Total Expense Unadjusted. The calculation of the input indices and values used are shown in Table A.

The 2016 output index was developed from the costed waybill sample, a commonly used data source. The costed waybill sample excludes movements lacking sufficient information for the application of unit costs.

Using the costed waybill sample as a base, each movement is assigned to one of the 189 segments or categories used to develop the output index. Segmentation is based on three mileage blocks, seven car types, three weight brackets, and three shipment sizes. The output index is a composite of the year-to-year change in ton-miles for each of the 189 segments weighted by each segment's base-year share of total revenues.

The change in productivity is calculated by dividing the output index by the input index. The multi-year average for the period 2012-2016 is calculated by taking a geometric mean, which was found to be 0.996 (-0.4% per year). The input index, the output index, the annual productivity change, and the calculation of the 2012-2016 average are shown in Table B.

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[3] The development and application of the productivity adjustment is explained in the decision in this proceeding found at 5 I.C.C. 2d 434 (1989).

Table A Calculation of Input Indices 2011-2016				
Year	Total Expense Unadjusted (000s) (1)	RCR Indices 2011-2016 (2)	Total Expense Constant Dollars (3)	Input Index Column (3) 2012/2011 etc (4)
2011	50,243,494	513.7	47,367,966	
2012	51,464,512	526.8	47,312,572	0.999
2013	52,366,102	526.3	48,187,162	1.018
2014	54,753,917	531.0	49,938,460	1.036
2015	49,465,744	493.3	48,563,267	0.972
2016	45,711,184	484.3	45,711,184	0.941

Table B Comparison of Output, Input, and Productivity 2012-2016			
Year	Output Index (1)	Input Index (2)	Productivity Change [4] Col (1)/Col (2) (3)
2012	1.007	0.999	1.008
2013	1.022	1.018	1.003
2014	1.055	1.036	1.018
2015	0.913[5]	0.972	0.939
2016	0.955	0.941	1.015
Productivity Change Five-Year Moving Avg.			0.996

The five-year (2012-2016) productivity trend calculated using a geometric average is 0.996 or -0.4%. Note that there are changes in some of the individual numbers in Table A and Table B compared with corresponding years prior to the Board's Productivity Adjustment

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[4] The values shown in Column 3 are taken from the spreadsheet used to calculate productivity and, due to rounding, may not equal numbers calculated using the rounded numbers shown in Columns 1 and 2.

[5] The 2015 output index was developed from the costed Waybill Sample and then adjusted by a linking factor due to a change in the miling methodology associated with the Waybill Sample. See R.R. Cost Recovery Procedures—Productivity Adjustment, EP 290 (Sub-No. 4), slip op. at 2, 5 (STB served Jan. 29, 2018).

decision for 2013—Railroad Cost Recovery Procedures—Productivity Adjustment, EP 290 (Sub-No. 4) (STB served Mar. 4, 2014). These changes represent the revisions to the R-1 submitted by the railroads which were first incorporated into the Board's 2008-2012 productivity study. None of the changes are large enough to affect the five-year moving geometric average calculated in previous decisions.